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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,065	07/28/2003	James R. Cole	200208981-1	5842

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EXAMINER

SEVER, ANDREW T

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,065

Applicant(s)

COLE ET AL.

Examiner

Andrew T Sever

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/6/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 10/08/2004. These drawings are acceptable.

Information Disclosure Statement

2. The information disclosure statement filed 12/6/2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

The Seeger reference is not in English, although applicant states that it is from a foreign search report, this is insufficient, since there is no copy of said search report and since the relevance of the Seeger reference cannot be determined by just looking at the drawings. Accordingly it has not been considered. All other references have been considered.

Claim Objections

3. Claim 28 is objected to because of the following informalities: claim 28 recites the limitation “wherein a system controller” in claim 17. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

There is no “system controller” in claim 17 to be modified as claimed in claim 28. Claim 17 only claims a control mechanism and it is this control mechanism that will be assumed for purposes of a prior art examination to be what is modified.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 7, 8, 29, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Takizawa et al. (US 6,702,444.)

Takizawa teaches in columns 13 and 14 a method of controlling a digital projector, comprising:

Receiving a request to turn on the digital projector (see lines 18-22 of column 13 where it is taught that the standby period begins when the projector is powered on, which would be a turn on request);

Receiving temperature data associated with a light source from a temperature sensor (the various fan speed settings as well as the light ignition are taught to be based on temperature readings taken from a temperature sensor 410 see line 46 of column 13);

Comparing the temperature data to a predetermined threshold (there are taught numerous predetermined thresholds);

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Turning on a cooling device if the temperature data is above the predetermined threshold and if a turn-on request has been received (The fans are rotated if a turn-on request is received); and

Turning on the light source if the temperature data is at or below the predetermined threshold (the light source has a threshold of T7 or T8 as taught at line 82 of column 13, which is where the light source is extinguished if already lit or in the case where a turn on command is given it would be lit anytime below that after the first temperature reading was taken and may or may not be lit if it were above that.)

With regards to applicant's claim 2:

Takizawa's method if for a video projector

With regards to applicant's claim 7 and 8:

The sensor is taught in column 13 lines 33-44 to be in the vicinity of the light-source lamp unit and the internal environment of the digital projector.

With regards to applicant's claim 29:

See above.

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With regard to applicant's claim 31:

The above method would inherently comprise of a program of some sort executed in the processor of the projector of Takizawa (Takizawa utilizes a processor not clockwork see figure 9.)

6. Claims 9, 11, 12, 16, 30, 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirao et al. (US 2002/0196606.)

Hirao teaches a projector in figure 1 and a method in figure 3 (the part numbers below will refer to figure 3 not figure 1) for controlling a digital projector comprising:

Displaying images with the digital projector using a light source (liquid crystal projectors are used for displaying images)

Receiving a request to turn off the digital projector (7)

Turning off the light-source in response to the request received (inherent, since the fan is turned off when the turn off request is received and Hirao's fans are present to keep the light source below a critical temperature, continuing to light the light source after a turn off command would be counter to this purpose); and

Turning off a cooling device (8) in response to the request and within a substantially immediate time frame without consideration of the light-source temperature (there is not intervening step between the off command and the power off command.)

With regards to applicant's claim 11:

Hirao is a video projector.

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With regards to applicant's claim 12:

Since the fan is turned off substantially immediately after receiving a turn off request, inherently the light-source would have to be passively cooled.

With regards to applicant's claim 16:

The cooling device is a fan.

With regards to applicant's claim 30:

Hirao teaches an apparatus for controlling a digital projector (specifically a microcomputer part 1 of figure 1), which would include all the means for executing the above method.

With regards to applicant's claim 32:

The above method would inherently comprise of a program of some sort executed in the processor of the projector of Hirao (Hirao utilizes a processor not clockwork see figure 1.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa as applied to claims 1, 2, 7, 8, 29, and 31 above, and further in view of Arimoto et al. (US 6,597,118.)

As described in more detail above, Takizawa, teaches a method for controlling a digital projector which among other things includes a light source and that the light source is lit if a temperature is at or below a predetermined threshold, however, Takizawa does not specifically teach that the light-source is a mercury vapor lamp, nor that the threshold is the boiling point of mercury. Arimoto teaches that increasingly high-pressure mercury lamps are commonly used in projection devices (see column 1 lines 15-23.) Arimoto further teaches that it is desirous for both long life and achieving a bright light, to ignite the lamp as close to the boiling point as possible, accordingly the threshold temperature is set at the boiling point (see column 2 lines 58-66.) Given the teachings Arimoto, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mercury lamp and make the boiling point of the mercury the threshold in the method taught by Takizawa.

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9. Claims 5, 6, 17-19, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa as applied to claims 1, 2, 7, 8, 29, and 31 above.

As described in more detail above Takizawa teaches the method of controlling a digital projector which among other things comprises of having a user request to turn on the projector, however Takizawa does not specifically teach how that user request to turn on the projector. It is well known in the electronics arts especially in display arts such as TVs and projectors that an on/off command is requested from an on/off control mounted on the projector or alternatively from a remote (Takizawa teaches a remote control in column 4 lines 15-23). One example of a projection apparatus using a control mounted on the projector to receive an on/off command or alternatively a remote control is taught by Parker (US 4,218,115) in column 4 lines 33-66. Accordingly since it is well known to give on/off commands either by local controls (controls mounted on the projector) or by remote control and given that Takizawa teaches a remote control, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use such a method for requesting an on/off command in the method of Takizawa.

With regards to applicant's claim 17-19 and 23-27:

Takizawa teaches the apparatus in figures 2-7 and 9 for performing the above method (see immediately above and the 35 USC 102 rejection based on Takizawa for a more detail description.) For example part 8 is the light source, parts 16 are fans (cooling devices), and figure 9 showing the control mechanism.

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10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao as applied to claim 9 above, and further in view of Arimoto et al. (US 6,597,118.)

As described in more detail above, Hirao, teaches a method for controlling a digital projector which among other things includes a light source and that the light source, however, Hirao does not specifically teach that the light-source is a mercury vapor lamp. Arimoto teaches that increasingly high-pressure mercury lamps are commonly used in projection devices (see column 1 lines 15-23.) Given the teachings Arimoto, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mercury lamp in the method taught by Hirao.

11. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao as applied to claim 9 above and further in view of Parker (US 4,218,115.)

As described in more detail above Hirao teaches the method of controlling a digital projector which among other things comprises of having a user request to turn on the projector, however Hirao does not specifically teach how that user request to turn on the projector. It is well known in the electronics arts especially in display arts such as TVs and projectors that an on/off command is requested from an on/off control mounted on the projector or alternatively from a remote. One example of a projection apparatus using a control mounted on the projector to receive an on/off command or alternatively Parker teaches a remote control in column 4 lines 33-66. Accordingly since it is well known to given on/off commands either by local controls (controls mounted on the projector) or by remote control, it would have been obvious to one of ordinary skill in the art at the time

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the invention was made to use such a method for requesting an on/off command in the method of Hirao.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa as applied to claim 17 above, and further in view of Arimoto et al. (US 6,597,118.)

As described in more detail above, Takizawa, teaches an apparatus for controlling a digital projector which among other things includes a light source and that the light source is lit after an on/off command is received from a control (either in a remote or mounted on the projector itself) if a temperature is at or below a predetermined threshold, however, Takizawa does not specifically teach that the light-source is a mercury vapor lamp, nor that the threshold is the boiling point of mercury. Arimoto teaches that increasingly high-pressure mercury lamps are commonly used in projection devices (see column 1 lines 15-23.) Arimoto further teaches that it is desirous for both long life and achieving a bright light, to ignite the lamp as close to the boiling point as possible accordingly the threshold temperature is set at the boiling point (see column 2 lines 58-66.) Given the teachings Arimoto, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mercury lamp and make the boiling point of the mercury the threshold in the light source control apparatus taught by Takizawa.

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13. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa as applied to claim 17 above, and further in view of Goodwin (US 6,345,238.)

As described in more detail above Takizawa teaches an apparatus for controlling a digital projector, which among other things includes temperature sensors for detecting the temperature around a light source, however Takizawa does not teach specifically what form the temperature sensors take. Goodwin teaches in columns 2-4 and specifically at lines 55-63 of column 4 that silicon PN-junction sensors are frequently used in high temperature environments (such as that found near a high-pressure mercury arc lamp) and further that PN-junction resistive sensors of the type taught by Goodwin are good over a wide range of high temperature while requiring little calibration. Given all of these advantages it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the silicon PN-junction resistive sensors as taught by Goodwin for the temperature sensors taught by Takizawa.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa as applied to claim 17 above, and further in view of Derryberry (US 6,626,543.)

As described in more detail above, Takizawa teaches a method and corresponding apparatus for controlling a digital projector which includes a control mechanism, however Takizawa does not describe that the control mechanism comprises of a computer system integrated into the digital projector, including a central processing unit, random access memory, mass storage, and access to an external network. Derryberry teaches a projector having integrated computer capabilities built into the projector so that no

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external computing device is required, allowing easier transport and set up (see column 2 lines 8-26.) Derryberry teaches in column 3 lines 40-65 that the projection device includes, a central processing unit, random access memory (it is well known that micro-processing capabilities able to run applications such as Microsoft PowerPoint, Word, and Excel would require both RAM and a CPU), mass storage (CD ROM, and DVD drives), and access to an external network (wireless technology as well as telephone connectivity.) Accordingly given that Derryberry teaches that the portable projector having all of these systems incorporated within it is much easier used and set-up then a projector without these components, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Derryberry's portable system for the control system of Takizawa.

Response to Arguments

15. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

First, with regards to applicant's claim 10, applicant has indicated it as cancelled in the complete listing of the claims received on 10/8/2004 and it has been treated as such, therefore any arguments addressing claim 10 specifically (if there are any) have been ignored.

With regards to applicant's claims 1, 2, 7, 8, 29, and 31 the rejection has been changed from a 35 USC 103 rejection to a 35 USC 102 rejection based on Takizawa for

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these claims for better clarity, however the underlying basis of the rejection remains the same, therefore applicant's arguments will be addressed also applicant's arguments addressing the 35 USC 103 rejections of Takizawa in view of Arimoto will be addressed. All other arguments have been considered but are considered moot due to the new grounds of rejection.

Applicant argues correctly that that Takizawa describes a way of lowering fan noise and keeping the light source or lamp from overheating and possibly becoming damaged. First with regards to the fan noise and other purposes of Takizawa as stated by the present applicant, it is irrelevant why Takizawa performs its method, Takizawa clearly meets the first 5 steps of applicant's claim 1, even if it is for different reasons than applicant's specified purpose. The only question is does Takizawa turn on the light source if the temperature data is at or below the predetermined threshold.

Applicant's specific argument concerns whether Takizawa takes into account the temperature around the lamp in turning on the lamp; however, applicant's claim 1 does not. Applicant's claim only claims that the lamp is lit if the temperature is less than or equal to a threshold temperature, Takizawa clearly teaches that the lamp is lit when it is less than or equal to a threshold temperature, it also happens to teach that it is lit when it is greater than the threshold temperature for less than a set period of time (once it exceeds the set period of time it is extinguished). Accordingly applicant's arguments are not persuasive, however since the grounds of rejection have been changed the rejection has been made non-final.

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With regards to the 35 USC 103 rejections based on Takizawa in view of Arimoto, applicant argues Arimoto in view of applicant's own invention not in view of Takizawa. Takizawa does not preclude the lamp during the striking phase from exceeding the threshold temperature, as long as it does not do it for very long, accordingly it would be obvious to combine Arimoto with Takizawa.

Applicant only argues the remaining 35 USC 103 rejections made in the previous office action (Goodwin and Derryberry based on the above arguments against the rejection on Takizawa. Since the office did not find those arguments persuasive the other arguments are accordingly not found persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

A handwritten signature in black ink, appearing to read "Judy Nguyen", is positioned above the printed name.

JUDY NGUYEN
SUPERVISORY PATENT EXAMINER